

1 (currently amended). A method for hermetically sealing dielectrically
2 insulating isolation trenches by filling with a fill material in a deposition method,
3 wherein each of the trenches has a first width (b1) and is are slightly
4 broadened (b2) at a specific positions (2) and trench portion longitudinally
5 adjacent to the first width, wherein a low pressure deposition technique is
6 used such that a void channels (5) forming is formed in the an area of the
7 each trenches having normal the first width (b1) by closing the an upper trench
8 portions with the a fill material (9) are and hermetically sealed each trench in
9 the a longitudinal direction of the trench by means of by low pressure material
10 deposition from the broadened trench portion and along the length direction of
11 the each trench.

2(cancelled).

1 3(previously presented). The method of claim 1, wherein the broadened
2 trench portions are provided in regular intervals.

4(cancelled).

1 5(currently amended). A method for hermetically sealing
2 dielectrically insulating isolation trenches by filling with a low pressure
3 deposition technique,

4 (i) wherein the each isolation trenches are has two portions of a first
5 width, both being slightly broadened towards at least at least at one specific
6 position broader trench portion that is longitudinally between the two
7 portions of the first width;

8 (ii) a said low pressure deposition technique is used to hermetically seal
9 a void in a longitudinal direction of the isolation trench by means of a said low
10 pressure material deposition starting from the at least one broadened trench

11 portion ~~(2, 3)~~ and along ~~the a~~ length direction of the trench, wherein said void is
12 was formed in ~~the area of the each~~ isolation trenches ~~(1)~~ portion having the
13 normal first width and due to the closure of ~~the~~ upper trench portions of first
14 width with said fill material.

6(cancelled).

1 7(previously presented). The method of claim 5, wherein a plurality of
2 broadened trench portions are provided in regular intervals for forming sealing
3 positions along a channel.

1 8(previously presented). The method of claim 5, wherein the slightly
2 broadened isolation trenches are broadened at the at least at one position
3 according to a width that is not greater than the width of the trench at the non-
4 broadened position.

1 9(currently amended). The method of claim 5, wherein ~~the each~~
2 broadened ing trench portion ~~(2, 3)~~ is provided by two conical sections ~~(2)~~,
3 starting from the first width portions of each trench.

1 10(previously presented). The method of claim 5, wherein the low
2 pressure technique is performed substantially at vacuum conditions.

1 11(previously presented). The method of claim 5, wherein the
2 broadening is provided at least at a short piece compared to the total length of
3 the channel.

1 12(currently amended). The method of claim 5, wherein the selection of
2 parameters of the deposition process and of a trench configuration is performed
3 such that possibly remaining lateral voids are completely sealed before the

4 **slightly broadened** trench section having the slight broadening (**b2**) **portion is**
5 **closed**s in the **an** upwards direction, so that a **inhibiting** further filling **cannot**
6 **take place of the trench.**

1 13(currently amended). A device comprising a wafer having formed
2 therein isolation trenches, said wafer including hermetically sealed dielectrically
3 insulating isolation trenches formed by filling with a **low pressure** deposition
4 method,

5 (i) wherein **the each** isolation trenches **(1, 2)** **are is** slightly broadened
6 at least at one specific **position portion between at least two conical portions**
7 **towards two portions of a smaller width than said broadened width;**

8 (ii) wherein void channels are hermetically sealed in the longitudinal
9 direction of **the each** trench by a **said** low pressure material deposition from the
10 broadened trench portion in the longitudinal direction of the trench filled by
11 means of a **the** low pressure deposition technique, said void channels **being**
12 **having** formed during the filling in **the area of** the trenches having the **normal**
13 **smaller** width by closing the upper trench portions with fill material.

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